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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,492	03/01/2004	Lingyi A. Zheng	MIO 0082 N2/40509.292	9512

7590 03/01/2006
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EXAMINER

THOMAS, TONIAE M

ART UNIT	PAPER NUMBER
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2822

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

A

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/790,492	Applicant(s) ZHENG ET AL.	
	Examiner Toniae M. Thomas	Art Unit 2822	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 07 February 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

- 3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because:
 - (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ They raise the issue of new matter (see NOTE below);
 - (c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

- 4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
- 5. ☐ Applicant's reply has overcome the following rejection(s): _____.
- 6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
- 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
 The status of the claim(s) is (or will be) as follows:
 Claim(s) allowed: none.
 Claim(s) objected to: none.
 Claim(s) rejected: 1-11.
 Claim(s) withdrawn from consideration: none.

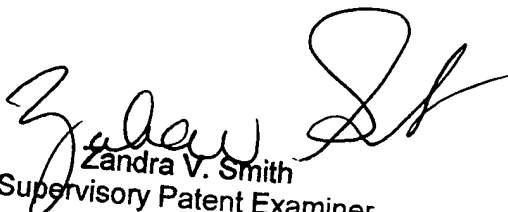
AFFIDAVIT OR OTHER EVIDENCE

- 8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
- 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
- 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

- 11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
- 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
- 13. ☐ Other: _____.

Continuation of 11. does NOT place the application in condition for allowance because: Applicants' arguments filed on 07 February 2006 have been fully considered, but are not persuasive for at least the reasons as follows. First, claims 1-11 do not recite the temperature of the substrate. Therefore, it is not necessary that the Lee et al. reference (Lee) teach the temperature of the semiconductor substrate. Secondly, Lee teaches that the reaction chamber temperature is maintained at a temperature of 450 degrees Celsius throughout the atomic layer deposition (ALD) process. In other words, the reaction chamber temperature is maintained at a temperature of 450 degrees Celsius as the silicon-containing precursor is chemisorbed, and as the nitrogen-containing precursor is reacted with the chemisorbed silicon-containing precursor. Nowhere in Lee does it state that the temperature in the reaction chamber is changed from 450 degrees Celsius. So, if the reaction chamber temperature of Lee is maintained at 450 degrees Celsius throughout the ALD process; then, absent evidence to the contrary, it stands to reason that (1) the temperature across the semiconductor substrate is maintained at 450 degrees Celsius, and 2) the temperature across the semiconductor substrate is maintained at 450 degrees Celsius throughout the ALD process. Furthermore, while Lee does teach maintaining the reaction chamber temperature at a set temperature of 450 degrees Celsius during the ALD process, the claimed invention does not require the reaction chamber to be maintained at a set temperature through multiple processing steps. So, the fact that Lee fails to teach maintaining the reaction chamber at a set temperature through multiple processing steps is irrelevant.



Zandra V. Smith
Supervisory Patent Examiner